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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,151	11/03/2003	Hamid Namaky	19325/04063	3831
30734	7590	02/21/2006	EXAMINER	
BAKER & HOSTETLER LLP WASHINGTON SQUARE, SUITE 1100 1050 CONNECTICUT AVE. N.W. WASHINGTON, DC 20036-5304				TRIEU, VAN THANH
ART UNIT		PAPER NUMBER		
		2636		

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/700,151	NAMAKY ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Van T Trieu	2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 30 November 2005.  
 2a) This action is **FINAL**.                                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-3,5,7-23,25,26 and 28-38 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-3,5-7,23,25,26 and 28-38 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
     Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_\_

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_

***DETAILED ACTION***

***Claim Objections***

1. Claim 3 is objected to because of the following informalities: the abbreviation "OBD" should be spell out. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1, 2, 7, 8, 16, 17, 19-22, 28 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gumbel** [US 6,393,379].

Regarding claim 1, the claimed an automotive device for displaying vehicle parameters that are transmitted via a vehicle data bus, comprising: a display comprises one or more analog gauges (the vehicle instrument panel 102 includes actual/real gauges 104, see Figs. 1 and 2, col. 4, lines 60-66 and col. 5, lines 45-48); but **Gumbel** fails to disclose the connector for releasable and directly connecting to a vehicle data bus. However, **Gumbel** teaches that a vehicle instrument display 102 with real gauges 104 are connected to electrical system controller ESC 30 over the common data bus 18. A graphic display 121 of the computer processor 119 is connected to the data bus 18 by a connector 36 for providing of mock conventional gauges 124 as of the real gauge 104, see Figs. 1 and 2, col. 4, lines 60-62 and col. 5, lines 18-30. Therefore, it would have been obvious to one skill in the art at the time the invention was made to utilize the data bus connector 36 for connecting to the ESC 30 in order to make easily maintenance, replacing/repairing the ESC without cutting the cables or data bus lines.

The claimed processor in circuit communication with the display and the connector (the ESC 30 communicates with the vehicle instrument display 102, see Fig. 2, col. 4, lines 52-67 and col. 5, lines 1-15); and the mounting device secured to the display, wherein the mounting device is configured to facilitate securing the display to a vehicle (the vehicle instrument panel display 102 is mounted on a mobile vehicle 101, see Fig. 1).

Regarding claim 2, the claimed communication circuit (the transceiver, see col. 5, lines 5-15).

Regarding claim 7, the claimed graphical display (the graphical display 120, see Fig. 2, col. 6, lines 7-13).

Regarding claim 8, the claimed LCD display (the LCD display 106, see Fig. 2, col. 4, line 66).

Regarding claim 16, all the claimed subject matters are discussed in respect to apparatus claim 1 above.

Regarding claim 17, the claimed connector means comprising a connector plugged into the vehicle data bus as the discussions of using the connector 36 in claim 1 above.

Regarding claim 19, the claimed selecting one or more vehicle parameters to be displayed on the one or more instruments (see, col. 5, lines 9-15).

Regarding claim 20, the claimed means for mounting the display means outside of factory installed instrument panel in the vehicle (see Fig. 1).

Regarding claim 21, the method claimed limitations are discussed in respect to the apparatus claims 1 and 20 above, and including the diagnostic (see abstract, col. 3, lines 36-67).

Regarding claim 22, the claimed processor and the communication circuit are integral (the ESC 30 and transceiver, see Fig. 2, col. 5, lines 5-15).

Regarding claim 28, all the claimed subject matters are cited in respect to claims 7 and 21 above.

Regarding claim 37, all the claimed subject matters are cited in respect to claims 20 and 21 above, see Fig. 1.

3. Claims 3, 18, 23 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gumbel** [US 6,393,379] in view of **Tomson** [US 6,871,121].

Regarding claim 3, **Gumbel** fails to disclose the connector comprises an OBD II connector. However, **Gumbel** teaches that the connector 36 for connecting between the processor and the data bus 18, see Fig. 2. **Tomson** suggests that the T16-002 or T16-003 interface defines the communication protocol between the interface 16 and visualization computer 12. For the T16-002 or T16-003 Interface, the communication protocol between the automobile data bus (via the OBD port 13) and RS-232 can be found in the tech manual for this interface from Multiplex Engineering, Inc., at web site address, [www.multiplexengineering.com/tech/manual](http://www.multiplexengineering.com/tech/manual). See Fig. 1, col. 3, lines 49-67 and col. 4, lines 1-10. Therefore, it would have been obvious to one skill in the art at the time the invention was made to substitute the ODB connector of **Tomson** for the data

bus connector of **Gumbel** since the ODB connectors are well known in the electronic communication engineering technical manual available in the market and web site.

Regarding claim 18, all the claimed subject matters are discussed between **Gumbel** and **Tomson** in respect to claims 3 and 17 above.

Regarding claim 23, all the claimed subject matters are discussed between **Gumbel** and **Tomson** in respect to claims 3 and 21 above.

Regarding claim 38, all the claimed subject matters are discussed between **Gumbel** and **Tomson** in respect to claims 3 and 37 above.

4. Claims 5, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gumbel** [US 6,393,379] in view of **Beckert et al** [US 6,175,789].

Regarding claim 5, **Gumbel** fails to disclose the D/A conversion circuit in circuit communication with the processor for driving the one or more analog gauges.

However, **Gumbel** teaches that the ESC 30 or controllers 40 provide a plurality of ports providing for each of the following: analog inputs, analog outputs, digital inputs, digital outputs, see Fig. 5, col. 7, lines 15-27. **Beckert et al** suggests that a vehicle computer system 22 runs multiple applications on the operating system including both vehicle related applications such as vehicle security application, vehicle diagnostic application, communication applications, etc. The computer 22 is connected to a support module 62

via a multi-bit-bus 66 or USB 70. The support module 62 includes audio signal processor 96, AM/FM tuner model 98, GPS 100 and one or more audio analog-to-digital converters and digital-to-analog converters or CODECS 102, see Figs. 1-3, 6 and 7, col. 2, lines 43-49, col. 5, lines 16-20 and col. 6, lines 6-20. Therefore, it would have been obvious to one skill in the art at the time the invention was made to implement the CODECS of **Beckert et al** to the ESC or controllers of **Gumble** for converting of both analog and digital signals received from various sensors since the vehicle data communications includes transmission of analog and digital data.

Regarding claim 25, all the claimed subject matters are discussed between **Gumbel** and **Beckert et al** in respect to claims 5 and 21 above.

Regarding claim 26, all the claimed subject matters are discussed between **Gumbel** and **Beckert et al** in respect to claim 25 above.

5. Claim 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gumbel** [US 6,393,379] in view of **Kubota et al** [US 6,401,029].

Regarding claim 9, **Gumbel** fails to disclose the display comprises a plasma display. However, **Gumbel** teaches that the vehicle instrument panel 102 includes a plurality of actual gauges 104, indicators, LCD or other numeric displays 106 for displaying a plurality of vehicle parameters, see Fig. 2, col. 4, lines 65-67. **Kubota et al** suggests that a display 27 in the vehicle interior may be a CRT display, a LCD, a plasma display

or a hologram device for displaying of vehicle condition, time, date, position and environmental condition surrounding the vehicle, see Figs. 1, 4 and 5, col. 5, lines 20-32 and col. 8 lines 10-13. Therefore, it would have been obvious to one skill in the art at the time the invention was made to substitute the plasma display of **Kubota et al** for the LCD display of **Gumbel** since the plasma is a thinner display for mounted to any constrain space, such as the vehicle dashboard.

6. Claims 10, 11, 29 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gumbel** [US 6,393,379] in view of **Hein et al** [US 6,441,510]. Regarding claim 10, **Gumbel** fails to disclose the displaying a tachometer parameter. However, **Gumbel** teaches that the vehicle instrument panel 102 includes a plurality of actual gauges 104, indicators, LCD or other numeric displays 106 for displaying a plurality of vehicle parameters, see Fig. 2, col. 4, lines 65-67. **Hein et al** suggests that the vehicle instrument panel includes a multi-controller 100 connected to an instrument cluster 36, which is connected to a speedometer, tachometer, fuel, oil pressure, temperature gauge, see Figs. 1 and 3, col. 4, lines 1-13. Therefore, it would have been obvious to one skill in the art at the time the invention was made to implement the tachometer display of **Hein et al** to the LCD display of **Gumbel** for monitoring engine performance and saving fuel.

Regarding claim 11, **Gumbel** fails to disclose the displaying a oil pressure parameter. However, **Gumbel** teaches that the vehicle instrument panel 102 includes a plurality of

actual gauges 104, indicators, LCD or other numeric displays 106 for displaying a plurality of vehicle parameters, see Fig. 2, col. 4, lines 65-67. **Hein et al** suggests that the vehicle instrument panel includes a multi-controller 100 connected to an instrument cluster 36, which is connected to a speedometer, tachometer, fuel, oil pressure, temperature gauge, see Figs. 1 and 3, col. 4, lines 1-13. Therefore, it would have been obvious to one skill in the art at the time the invention was made to implement the oil pressure display of **Hein et al** to the LCD display of **Gumbel** for monitoring oil pressure of engine performance and saving fuel.

Regarding claim 29, all the claimed subject matters are discussed between **Gumbel** and **Hein et al** in respect to claims 10 and 21 above.

Regarding claim 32, all the claimed subject matters are discussed between **Gumbel** and **Hein et al** in respect to claims 11 and 21 above.

Claims 12-15 and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gumbel** [US 6,393,379 in view of **Austin** [US 5,309,139].

Regarding claim 12, **Gumbel** fails to disclose the displaying a horsepower parameter. However, **Gumbel** teaches that the vehicle instrument panel 102 includes a plurality of actual gauges 104, indicators, LCD or other numeric displays 106 for displaying a plurality of vehicle parameters, see Fig. 2, col. 4, lines 65-67. **Austin** suggests that a novel system for monitoring a plurality functions and conditions of a vehicle and

provided a graphic presentation and recordation of torque and horsepower. All information is reported live and updated by the onboard graphic computer 46. The live information digitally displayed torque and RPM and horsepower, see Figs. 1-3, abstract, col. 2, lines 40-60, col. 3, lines 9-67, col. 4, lines 1-37 and col. 5, lines 60-66. Therefore, it would have been obvious to one skill in the art at the time the invention was made to implement the horsepower display of **Austin** to the LCD display of **Gumbel** for monitoring the factors contributed to or depreciating a vehicle's performance to a driver or operator.

Regarding claim 13, **Gumbel** fails to disclose the displaying a torque parameter. However, **Gumbel** teaches that the vehicle instrument panel 102 includes a plurality of actual gauges 104, indicators, LCD or other numeric displays 106 for displaying a plurality of vehicle parameters, see Fig. 2, col. 4, lines 65-67. **Austin** suggests that a novel system for monitoring a plurality functions and conditions of a vehicle and provided a graphic presentation and recordation of torque and horsepower. All information is reported live and updated by the onboard graphic computer 46. The live information digitally displayed torque and RPM and horsepower, see Figs. 1-3, abstract, col. 2, lines 40-60, col. 3, lines 9-67, col. 4, lines 1-37 and col. 5, lines 60-66. Therefore, it would have been obvious to one skill in the art at the time the invention was made to implement the torque display of **Austin** to the CD display of **Gumbel** for generating an accurate profile of the duty cycle for an engine/vehicle combination that can be used to monitor engine performance and saving fuel.

Regarding claim 14, **Gumbel** fails to disclose the display displays fuel economy parameter. However, **Gumbel** teaches that the vehicle instrument panel 102 includes a plurality of actual gauges 104, indicators, LCD or other numeric displays 106 for displaying a plurality of vehicle parameters, see Fig. 2, col. 4, lines 65-67. **Austin** suggests that the live information digitally displayed fuel economy see Figs. 1-3, col. 4, lines 63-67 and col. 5, lines 1-7. Therefore, it would have been obvious to one skill in the art at the time the invention was made to substitute the fuel economy of **Austin** for displaying on the vehicle instrument panel of **Gumbel** for saving fuel and preventing of dead engine due to out of fuel.

Regarding claim 15, **Gumbel** fails to disclose the display displays temperature parameter. However, **Gumbel** teaches that the vehicle instrument panel 102 includes a plurality of actual gauges 104, indicators, LCD or other numeric displays 106 for displaying a plurality of vehicle parameters, see Fig. 2, col. 4, lines 65-67. **Austin** suggests that the live information digitally displayed engine temperature, see Figs. 1-3, col. 3, lines 28-30. Therefore, it would have been obvious to one skill in the art at the time the invention was made to substitute the engine temperature display of **Austin** for displaying on the vehicle instrument panel of **Gumbel** for notifying a driver since the engine temperature is very critical condition, which can cause fire and stalling of the vehicle engine.

Regarding claim 33, all the claimed subject matters are discussed between **Gumbel** and **Austin** in respect to claims 12 and 21 above.

Regarding claim 34, all the claimed subject matters are discussed between **Gumbel** and **Austin** in respect to claims 13 and 21 above.

Regarding claim 35, all the claimed subject matters are discussed between **Gumbel** and **Austin** in respect to claims 14 and 21 above.

Regarding claim 36, all the claimed subject matters are discussed between **Gumbel** and **Austin** in respect to claims 15 and 21 above.

7. Claims 30 and 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Gumbel** [US 6,393,379] in view of **Hayashi et al** [US 6,781,512].

Regarding claim 30, **Gumbel** fails to disclose the display an engine revolution per minute parameter. However, **Gumbel** teaches that the vehicle instrument panel 102 includes a plurality of actual gauges 104, indicators, LCD or other numeric displays 106 for displaying a plurality of vehicle parameters, see Fig. 2, col. 4, lines 65-67. **Hayashi et al** suggests that a controller 307 is coupled to a multiple RPM display 311. The display can be of any suitable type such as a CRT screen, an LED screen, a LCD screen, an analog or digital meter or gauge, see Figs. 1-4, col. 2, lines 29-67, col. 3, lines 1-64, col. 4, lines 35-67 and col. 6, lines 14-42. Therefore, it would have been

obvious to one skill in the art at the time the invention was made to supplement the RPM display of **Hayashi et al** to the gauge or LCD display of **Gumbel** for the driver can control his/her vehicle with a great efficiency to save the fuel.

Regarding claim 31, **Gumbel** fails to disclose the display an indication to the driver to shift gears. However, **Gumbel** teaches that the vehicle instrument panel 102 includes a plurality of actual gauges 104, indicators, LCD or other numeric displays 106 for displaying a plurality of vehicle parameters, see Fig. 2, col. 4, lines 65-67. **Hayashi et al** suggests that a controller 307 is coupled to a multiple RPM display 311 and gear shift display 313. The display can be of any suitable type such as a CRT screen, an LED screen, a LCD screen, an analog or digital meter or gauge, see Figs. 1-4, col. 2, lines 29-67, col. 3, lines 1-64, col. 4, lines 35-67 and col. 6, lines 14-42. Therefore, it would have been obvious to one skill in the art at the time the invention was made to implement the shift gear display of **Hayashi et al** to the LCD display of **Gumbel** for the driver changing gear smoother and to save the fuel.

### ***Response to Arguments***

8. Applicant's arguments filed on 30 November 2005 have been fully considered but they are not persuasive. Examiner is regrettably to generate a new office action based on the Amendment and the update search, wherein a new reference of **Gumbel** provides a ESC connected between the vehicle data bus and the vehicle instrument panel for displaying a plurality of vehicle parameters.

9. The claim objection filed in the First Office Action has not been addressed or corrected in the Amendment.

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from examiner should be directed to primary examiner **Van Trieu** whose telephone number is (571) 272-2972. The examiner can normally be reached on Mon-Fri from 7:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mr. Jeffery Hofsass** can be reached on (571) 272-2981.



**Van Trieu**  
**Primary Examiner**  
**Date: 2/15/2006**